

**WHAT IS CLAIMED IS:**

1. A method for reversing an ongoing proliferation or activity, or both, of activated blood cells, which comprises the step of administering an effective amount of a proteasome inhibitor to an individual in need for such a treatment.
- 5 2. A method as defined in claim 1, wherein said individual suffers from an adverse immune response, inflammation, or septic shock.
3. A method as defined in claim 2, wherein said adverse immune response is an autoimmune disease or a graft rejection.
4. A method as defined in claim 1, further comprising the step  
10 of co-administering an immunosuppressive drug with said proteasome inhibitor.
5. A method as defined in claim 4, wherein said immunosuppressive drug is selected from the group consisting of cyclosporin A, rapamycin and FK506.
6. A method as defined in claim 1, which results into activated  
15 blood cells apoptosis.
7. A method as defined in claim 1, which results into inhibition of energy and oxygen supply to said activated blood cells.
8. A method as defined in claim 7, wherein said inhibition of energy and oxygen supply is caused by disrupting mitochondrial function in activated  
20 blood cells.
9. A method as defined in claim 7, wherein said inhibition of energy and oxygen supply is caused by disruption of nitric acid synthesis.

10. A method as defined in claim 1, wherein said proteasome inhibitor is lactacystin or dipeptide boronic acid (DPBA), or analogs thereof.

11. A method as defined in claim 10, wherein said proteasome inhibitor is lactacystin.

5 12. A method as defined in claim 10, wherein said proteasome inhibitor is DPBA.